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Paraquat (PQ) is a cationic nonselective bipyridyl herbicide widely used to control weeds and grasses in agriculture. Epid
The orphan nuclear receptor Nurr1 is required for the development of the ventral mesencephalic dopaminergic neurons.
Paraquat, N-methyl-4-phenyl-1,2,3,6 tetrahydropyridine, and rotenone have been shown to reproduce several features c
Toxic concentrations of paraquat (0.2mM, 24h) caused death of both mature and immature cerebellar granule neurons (
Paraquat (PQ) is suspected to be an environmental risk factor for Parkinson's disease (PD). A strong correlation between
Paraquat (PQ) causes selective degeneration of dopaminergic neurons in the substantia nigra pars compacta, reproducin
An important feature of Parkinson's disease is the degeneration of dopaminergic neurons in the Substantia Nigra pars co
Parkinson's disease (PD) is a neurodegenerative disease that mainly affects dopaminergic (DA-ergic) neurons in the subst
BACKGROUND: Oxidative stress (OS) is an important factor in brain aging and neurodegenerative diseases. Certain neurc
Both epidemiological and pathological data suggest an inflammatory response including microglia activation and neuro-i
Axonal degeneration is a common pathologic feature in peripheral neuropathy, neurodegenerative disease, and normal a
The effects of the 1-methyl-4-phenylpyridinium ion (MPP(+)) and some structurally related compounds on mitochondrial
We have previously demonstrated that alpha-synuclein overexpression increases the membrane conductance of dopami
Investigation of mechanisms responsible for dopaminergic neuron death is critical for understanding the pathogenesis of
Primary cultures of fetal rat cortical neurons and astrocytes were used to test the hypothesis that astrocyte-mediated co
This study determined how preconditioned neurons responded to oxygen-glucose deprivation (OGD) to result in neuropr
The neurotoxins paraquat (PQ) and dopamine (DA or 6-OHDA) cause apoptosis of dopaminergic neurons in the substanti
Recent findings implicate the calcium-permeable transient receptor potential (TRP) melastatin subtype 2 (TRPM2) and ca
The two hit hypothesis of neurodegeneration states that cells that have been severely stressed once are more vulnerable
Xenobiotic exposure is a risk factor in the etiology of neurodegenerative disease. It was recently hypothesized that restri
The herbicide paraquat is an environmental factor that may be involved in the etiology of Parkinson's disease (PD). Syste

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Epidemiological and animal studies suggest that environmental toxins including paraquat (PQ) increase the risk of develc
The dual-hit hypothesis of neurodegeneration states that severe stress sensitizes vulnerable cells to subsequent challeng
Paraquat-stimulated NADPH-dependent lipid peroxidation in mouse brain and pulmonary microsomes was inhibited by s
Paraquat stimulates NADPH-Fe(2+)-dependent microsomal lipid peroxidation in mouse brain and strongly inhibits it in th
The cytotoxicity of reactive oxygen species and related agents toward cultured rat adrenal medullary phenochromocytor
We have investigated the response to oxidative stress in a model system obtained by stable transfection of the human ne
In the central nervous system oxidative stress has been implicated in the pathology of several neurological disorders. The
The brain is particularly vulnerable to oxygen free radicals, which have been implicated in the pathology of several neuro
Amyotrophic lateral sclerosis (ALS) is a progressive neurodegenerative disorder characterized by the selective death of m
The last few decades have seen the marketing of hundreds of new pesticide products with a forecasted expansion of the
Oxidative stress has been considered as the leading cause of blood-brain barrier disruption which implicates many neuro
Filamentous inclusions of alpha-synuclein protein are hallmarks of neurodegenerative diseases collectively known as syn
The ability of brain tissue preparation to generate superoxide from xenobiotic interactions has been investigated. We sh
Nitric oxide synthase (NOS) oxidizes L-arginine to NO(&z.ccirf;) and L-citrulline. Recent studies have shown that this enzy
BACKGROUND: An increase in reactive oxygen species (ROS) burden and subsequent oxidative damage to nucleic acids, p
Carnosic acid (CA; C20H28O4), which is also called salvin, is a major phenolic diterpene found in Rosmarinus officinalis L.
Pinocembrin (PB; 5,7-dihydroxyflavanone; C15H12O4) is a flavonoid found in propolis and exerts antioxidant, anti-inflam
ETHNOPHARMACOLOGICAL RELEVANCE: Parkinson's disease (PD) is a multifactorial neurodegenerative disorder affectin

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Paraquat is a neurotoxic agent, and oxidative stress plays an important role in neuronal cell death after paraquat exposu
Rat cultured cerebellar granule neurons (CGNs) were not sensitive to CuCl2 (1-10 microM, 24 h), whereas paraquat (150
Mitochondrial oxidative stress is a contributing factor in the etiology of numerous neuronal disorders. However, the prec
Cells from the midbrain micromass cell culture system from rat day 13 embryos were used to investigate the developme
Objective To evaluate the protective effect of peanut sprout extract (PSE) against paraquat (PQ) induced SK-N-SH cells. M
Purpose: To investigate whether two synthetic prenylated xanthone analogues -1,3,6,8-tetrahydroxy-9H-xanthen-9-one (
Oxidative stress caused by an increase in free radicals plays an important role in neuronal death. We investigated the eff
Oxidative stress and apoptosis play pivotal roles in the pathogenesis of neurodegenerative diseases. We investigated the
Background and purpose: Resveratrol (RSV) is a naturally existing polyphenolic compound abundantly found in grapes an
Paraquat (PQ) through electron transfer reactions with NADH-dependent oxidoreductase of mitochondria and NADPH-de
Amyloid ?-peptide (A?) and Paraquat PQ induce oxidative stress in astrocytes by formation of reactive oxygen species (R(
BIOSIS COPYRIGHT: BIOL ABS. This study defined the ability of a large sample of heterogeneous pesticides and neurotoxi
1. Objectives Mutations in the PINK1 gene are responsible for autosomal recessive Parkinson's disease (PD). The project
Cytoplasmic inclusions known as Lewy bodies, a hallmark of Parkinson's disease (PD) pathology, may protect against cyto
This study reports the effects of Ca2+ channel blockers (Ca antagonists) on intraneuronal Ca2+ ([Ca2+]i) movements and
Parkinson's disease (PD) is a common neurodegenerative disorder and is characterized by the progressive loss of dopami
BIOSIS COPYRIGHT: BIOL ABS. Cells from the midbrain micromass cell culture system from rat day 13 embryos were used

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